



Executive Director's Recommendation

Commission Meeting: November 6, 2014

PROJECT**Real Property Master Plan**

Fort Belvoir

Fairfax County, Virginia

NCPC FILE NUMBER

MP20

NCPC MAP FILE NUMBER

2204.10(05.00)43941

SUBMITTED BY

United States Department of Defense

Department of the Army

APPLICANT'S REQUEST

Approval of comments on draft master plan

REVIEW AUTHORITY

Advisory

per 40 U.S.C. § 8722(a) and (b)(1)

PROPOSED ACTION

Approve comments as requested

ACTION ITEM TYPE

Staff Presentation

PROJECT SUMMARY

The Department of the Army (the Army) has submitted the draft Fort Belvoir Real Property Master Plan, which comprises of three documents: the Installation Vision and Development Plan (IVDP); the Transportation Management Plan (TMP); and the Installation Planning Standards (IPS). The Army is currently conducting an Environmental Impact Statement to analyze the potential environmental impacts of the master plan.

The master plan serves as a framework for developing and managing real property on Fort Belvoir, including the 7,682-acre Main Post and the 807-acre Fort Belvoir North Area. The existing master plan was approved by NCPC in 1993, with a subarea plan approved in 2002. The 1993 master plan does not adequately reflect the present conditions of Fort Belvoir, which has evolved from an installation focused on troop support and training to an administrative function, housing over 140 Department of Defense organizations. The updated master plan seeks to reflect the evolution of Fort Belvoir, providing a framework for future growth from the approximately 39,000 personnel currently employed at Fort Belvoir to a projected employee population of 56,000 by 2030.

KEY INFORMATION

- Fort Belvoir consists of approximately 8,500 acres of land and is currently a workplace for approximately 39,000 people.
 - The master plan reflects the Army's projections that Fort Belvoir's current employee population could grow by approximately 5,000 people by 2017 and by 17,000 people by 2030.
 - The Army is proposing 52 short-term projects by 2017, and 19 long-term projects by 2030.
 - The current parking ratio for Fort Belvoir is 1:1.23. The Army is proposing to move to a 1:1.27 parking ratio in the short-term and a 1:1.3.7 parking ratio in the long-term.
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RECOMMENDATION

The Commission:

Provides the following comments on the draft Real Property Master Plan update for Fort Belvoir, Fairfax County, Virginia:

Regarding the Installation Vision and Development Plan:

Supports the vision and the guiding principles of the master plan documents as a framework for Fort Belvoir to: achieve environmental sustainability; support the natural habitat; recognize that land is a valuable resource; improve multimodal connectivity; and strengthen community partnerships.

Requests that prior to the submission of the final master plan the Army evaluate:

- Environmental Mitigation Areas;
- Potential sea level rise and effect on developable areas; and
- Locations for sustainable energy sources.

Regarding the Transportation Management Plan:

Notes that the Transportation Management Plan (TMP) proposes a long-term parking ratio of 1:1.37 and requests that the Army continue to evaluate strategies and opportunities to reach the 1:1.5 parking ratio goal outlined in the Federal Elements of the Comprehensive Plan for the National Capital.

Notes that the draft Environmental Impact Statement (EIS) includes short and long-term mitigation measures to address the potential transportation impacts caused by the master plan's projected population growth which the Army intends to implement concurrently with installation growth, and **requests** the Army to:

- Include the mitigation measures as a requirement in the EIS Record of Decision that will be issued at the conclusion of the National Environmental Policy Act process;
- Add post-mitigation monitoring within the TMP's Monitoring and Evaluation Section to gauge mitigation effectiveness; and
- Include a commitment within the TMP that post-mitigation monitoring would be carried out in coordination with Fairfax County.

Requests that prior to submission of the final master plan, the Army evaluate in the Transportation Management Plan:

- A mechanism for monitoring individual agency Transportation Management Plans;
- Strategies that target transportation impacts caused by non-employees to the installation; and
- District-level parking ratios including potential reduction of parking within the South Post development clusters.

Regarding the Installation Planning Standards Plan:

Recommends that the Army evaluate:

- Low Impact Development (LID) standards for roadways and parking areas

- Permeable pavement standards.

Regarding the Potomac Heritage National Scenic Trail (PHNST):

Notes that while commenting on the PHNST feasibility study, the Commission supported the creation of the trail and stated that it would ensure that the PHNST was in future master plans for Fort Belvoir and Marine Corps Base Quantico.

Notes that the Fort Belvoir draft master plan discusses the PHNST; however, in agreement with NCPC and the National Park Service (NPS) staff, the Army will not delineate a route for the PHNST in the master plan until further planning analysis is completed.

Notes that the NPS submitted language modifications pertaining to the PHNST and **requests** the Army review the language with the NPS and NCPC staff for inclusion in the master plan documents.

Notes that the Army, the NPS, the Northern Virginia Regional Commission, and NCPC are in the process of executing a Memorandum of Understanding to conduct planning analysis for the PHNST in southern Fairfax County, including potential opportunities within Fort Belvoir.

Regarding additional comments raised by Fairfax County, Virginia Department of Transportation, and NCPC staff:

Notes that Fairfax County provided comments on the master plan documents and the Draft EIS and **supports** Fairfax County's recommendations on:

- Potential changes to the Fort Belvoir tree replacement policy
- Implementation of the County's Environmental Quality Corridors on Fort Belvoir
- Traffic mitigation measures and monitoring
- Collaboration on airfield operations and impacts to the surrounding community
- Stormwater management strategies

Request that prior to the submission of the final master plan, the Army evaluate and respond to:

- VDOT comments on traffic modeling and mitigation
- Additional NCPC staff comments on the master plan documents and the draft EIS included in the Executive Director's Recommendation, Appendices C.

PROJECT REVIEW TIMELINE

| | |
|--|-----------------------------|
| Previous actions | None |
| Remaining actions (anticipated) | Review of Final Master Plan |

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I. PROJECT DESCRIPTION

Site

Fort Belvoir is located approximately 17 miles south of Washington, DC in southern Fairfax County, Virginia. The installation is comprised of two land tracts called Main Post and the North Area. Main Post is approximately 7,700 acres and is situated on the Potomac River, south of Mount Vernon and north of Mason Neck National Wildlife Refuge. Main Post is bisected by U.S. Route 1. Other major roads surrounding the installation are Fairfax County Parkway and Telegraph Road. In close proximity of the installation is the George Washington Memorial Parkway and Interstate 95.

In terms of character, Fort Belvoir Main Post has four distinct districts: South Post; North Post; Southwest Area; and the Davison Army Airfield.

South Post is located south of U.S. Route 1 and is approximately 2,550 acres. South Post has the largest concentration of employees on the installations with about 15,600 personnel and is the most densely developed part of Fort Belvoir. The land use of the South Post is mixed with administration and medical uses making up the highest percentages; the South Post also includes housing areas, community uses, and industrial uses.



Figure 1: Fort Belvoir Location

North Post is just north of U.S. Route 1, east of Fairfax County Parkway, and south of Telegraph Road. North Post is approximately 2,250 acres and has about 14,000 employees. The lower part of the North Post is similar in development of the South Post; however, the northern part of North Post is less dense and has mission partners that require more security. In addition, the northern part of North Post includes community uses such as a golf course and the Post Exchange. North Post also includes wildlife corridors and conservation areas.

Davison Army Airfield is located north of U.S. Route 1 and west of Fairfax County Parkway. The area is approximately 800 acres and supports about 1,200 employees. The main tenant of the

Davison Army Airfield area is the U.S. Army Operational Support Airlift Command which operates fixed/rotary wing aircraft.

The Southwest Area is located south of U.S Route 1 to west of South Post. It is approximately 2,100 acres with a 1,400 acre wildlife refuge. The area is predominantly an undeveloped wooded area. The area also includes ranges for engineer and troop training.

Fort Belvoir North Area is approximately 800 acres and is located about two miles northwest of Main Post. The North Area is west of Interstate 95 and is bound by Fairfax County Parkway on the south and west, and residential communities to the north. Until 1988, the North Area was used for testing and training; at that time the North Area was referred to as the Engineer Proving Ground. Due to the 2005 Base Realignment and Closure (BRAC), the National Geospatial-Intelligence Agency (NGA) moved its headquarters to the site in 2011. Approximately 8,600 employees work on the North Area.

Fort Belvoir Master Plan History

In 1993, the Commission approved the Land Use Element for the Fort Belvoir Master Plan and established a master plan employment level of 21,000 employees at Fort Belvoir for the year 2015. Also at that time, the Commission urged the Army to complete the Master Plan Short Range Component and associated documents, such as a Transportation Management Plan (TMP) and an Installation Design Guide. In 1995, the Commission approved the Fort Belvoir Installation Design Guide. A TMP, however, has not been submitted for the 1993 Master Plan.

Figure 2.1 Functional Areas

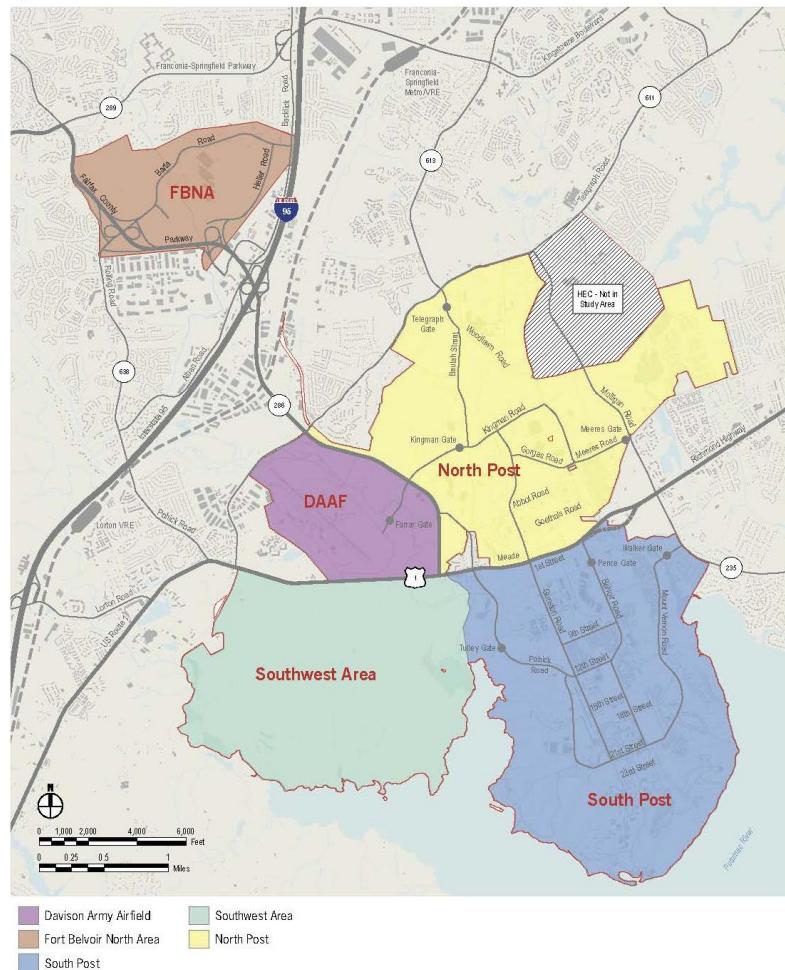


Figure 2: Fort Belvoir Sub-areas

In 2002, the Commission approved the Subarea Plan for the Regional Community Support Center, and the preliminary and final plans for the replacement of the DeWitt Army Hospital. In addition to its approval of the Subarea Plan, the Commission also encouraged the Army to “immediately undertake the updating of the Master Plan for all of Fort Belvoir. New projects beyond those included for the Subarea Plan should not be submitted for consideration until the update has been completed.” Subsequently, the Army worked on updating the 1993 Master Plan and submitted it to the Commission in 2005. However, in response to the Base Realignment and Closure (BRAC) Recommendations of 2005, the Army withdrew its submission due to the significant changes that the recommendations would have on the installation. For instance, as a result of the BRAC recommendations Fort Belvoir received an influx of approximately 20,000 personnel. This influx increased the installation population to approximately 40,000 personnel, 20,000 more than originally planned for in the 1993 Master Plan.

Since 2005, the Commission has reviewed approximately 50 projects at Fort Belvoir some directly related to the BRAC recommendations. Some of these projects include the National Geospatial Agency, the Community Hospital, the Missile Defense Agency Headquarters, and the North Atlantic Regional Medical Center. Some of the projects were indirectly related to the BRAC recommendations such as necessary infrastructure improvements and an emergency services center. In addition to the BRAC projects, the Army has also submitted other time-sensitive projects that were funded through the American Recovery and Reinvestment Act, such as the child development center on South Post. Recently, the Commission has reviewed a few large projects such as National Museum of the United States Army and the Post Exchange project. Periodically in its review of these projects, the Commission reminded the Army of the requirement to submit an updated Master Plan to reflect the changes at Fort Belvoir.

In April 2010, the Army submitted the draft Fort Belvoir Master Plan update for review by the Commission. In accordance with the Commission's Procedures for Intergovernmental Cooperation in Federal Planning in the National Capital Region, NCPC staff referred the draft master plan to local and regional agencies. At that time, Fairfax County, the Virginia Department of Transportation, and NCPC staff expressed to the Army that the master plan was dated 2007 and did not accurately reflect the existing and future conditions at Fort Belvoir. As a result, the Army withdrew the submission and updated the master plan to incorporate BRAC projects in the baseline existing conditions at the installation, and project future growth from that point. The Army, NCPC staff, and Fairfax County have been meeting since summer 2010 to discuss the master plan update and NCPC and Fairfax County have reviewed the document and provided staff level comments to the Army in April of 2013.

Since that time, the Army evaluated the comments and consulted with NCPC and Fairfax County staff on resulting changes to the document. Prior to submission of the draft master plan to the Commission, the Army has been undertaking an Environmental Impact Statement (EIS) to evaluate potential environmental impacts and held a scoping meeting on October 11, 2012. Recently, the Army has released the draft EIS and had a public meeting on September 30, 2014.

Proposal

The Fort Belvoir Real Property Master Plan (RPMP) provides direction for the orderly development and sustainment of the real property assets of Fort Belvoir. This includes land, facilities, and infrastructure. Each Army installation is required to have a RPMP. The Fort Belvoir Real Property Master Plan includes three documents:

1. *Installation Vision and Development Plan (IVDP)*

The IVDP is the big picture document of the master plan. It includes: the vision and developable area maps; framework plan including land use, transportation plan, a capacity analysis; and future development plans. The capacity analysis in combination with the development parcels give a range of how Fort Belvoir will develop in the future. The master plan lays out a population growth up to 56,700 employees by 2030.

2. *Transportation Management Plan (TMP)*

The TMP includes evaluation of transportation issues based on future conditions; results from a commuter survey; strategies for the installation to reduce impacts on the transportation network and to reach NCPC's parking ratio.

3. *Installation Planning Standards (IPS)*

The IPS includes site planning standards including district plans and regulating plans; building design standards; circulation design standards; landscape design standards; and site element design standards.

In addition, the Army has submitted the draft Environmental Impact Statement (DEIS) for review.

The Installation Vision and Development Plan (IVDP)

The IDVP includes five components: the vision; site assessment and constraints; the Land Use Plan; the Framework Plan; and the Infrastructure Plan.

Visioning/Guiding Principles

The planning process for the Real Property Master Plan started with a visioning workshop where the Army developed a vision for Fort Belvoir and set of guiding principles to help shape the future development of Fort Belvoir over the time frame of the RPMP. The vision statement and guiding principles are below:

Fort Belvoir RPMP Vision statement: "Fort Belvoir is an outstanding place to work, train, and live that embraces a culture of diversity, innovation, and challenge while continuing its legacy as a "beautiful to see" installation."

The RPMP guiding principles:

- Create and sustain a world-class Installation

- Achieve environmental sustainability
- Support the natural habitat
- Recognize that land is a valuable resource
- Improve multimodal connectivity
- Create a diverse and dynamic community
- Respect the history of Fort Belvoir to ensure the continuation of its legacy
- Strengthen community partnerships for mutual benefit

Site Assessment/ Constraints

The history and physical characteristics of Fort Belvoir have significant impacts on how the installation can grow and evolve in the future. In developing the draft Real Property Master Plan for Fort Belvoir, the Army identified a number of natural, cultural, and operational constraints and opportunities for installation development, and used this analysis, together with existing facilities and needs analysis, to develop planning strategies to guide the long-range use of land and facilities on the installations.

The Army combined the constraint layers to find the property on Fort Belvoir that was most suitable for development. This land has potentially no impacts to cultural resources, natural resources, and operations. Of the approximately 8,500 acres on Fort Belvoir, the Army found that only approximately 3,442 acres are developable.

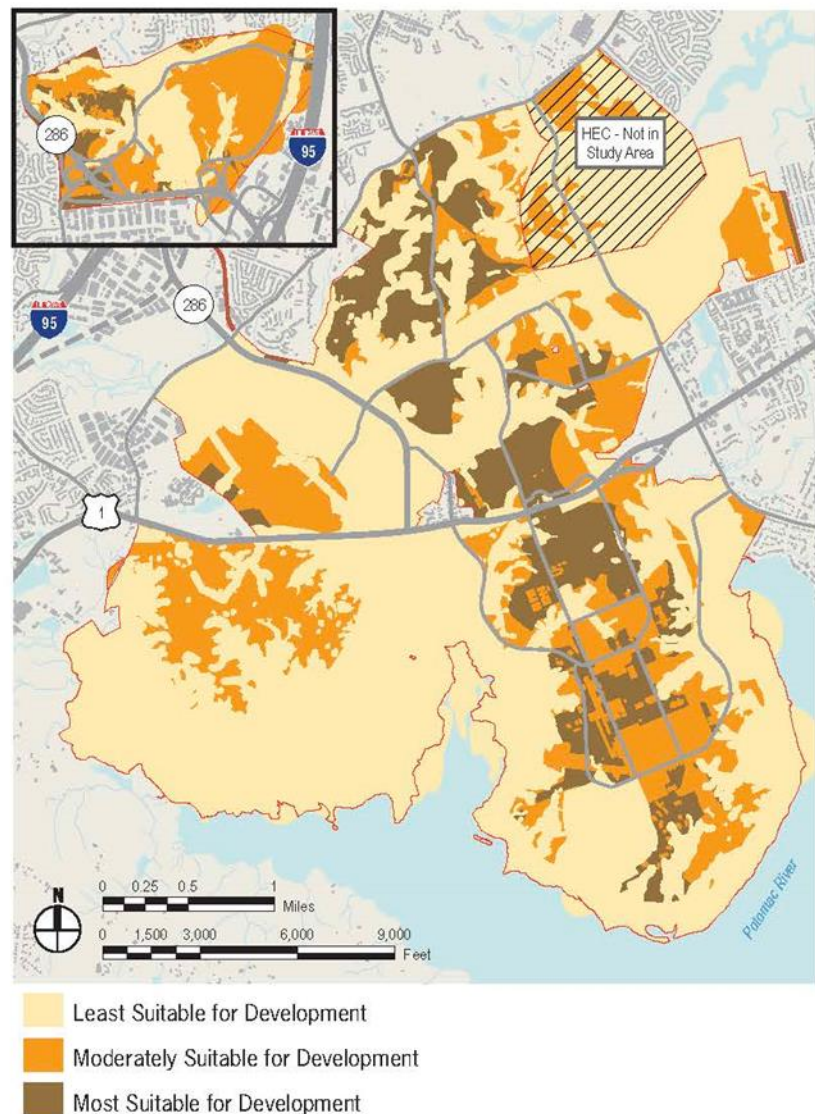


Figure 3: Fort Belvoir Land Suitable for Development

Land Use Plan

The IVDP also includes an evaluation of the existing land use on Fort Belvoir and a proposed updated land use plan. This section analyzed regional and local plans as well as Fort Belvoir future growth to propose changes in the land use on the installation.

In order to propose any changes in the 1993 approved land use plan, the Army had to identify the land use to the Army's current standard. In 1993, the Army was using 12 categories to describe land use. In 2007, the Army adopted new classifications and now there are seven land use categories: airfields; community; industrial; profession/institutional; residential; ranges/training; and troop. However, due to the 2005 BRAC Recommendations, the land use at Fort Belvoir has changed considerably since 1993; the installation moved from a troop training facility to an administration installation. The table below documents the land use acre comparison between what was approved in the 1993 Land Use Plan, the current land use on the installation, and the proposed land use plan.

| Table 3.3 - Land Use Acreage Comparison (1) | | | | | | | | | | | |
|---|--------------------|-------------|-------------|-------------------|-------------|-------------|-----------------------------|-------------------|-------------|-------------|-----------------------------|
| Land Use Category | 1993 Land Use Plan | | | Existing Land Use | | | Change in Developable Acres | Proposed Land Use | | | Change in Developable Acres |
| | Total | Constrained | Developable | Total | Constrained | Developable | | Total | Constrained | Developable | |
| Professional / Institutional | 1673 | 828 | 845 | 2145 | 953 | 1192 | 347 | 2288 | 983 | 1305 | 113 |
| Residential | 1289 | 789 | 500 | 1243 | 746 | 497 | (-3) | 1248 | 742 | 506 | 9 |
| Troop | 82 | 80 | 2 | 47 | 0 | 47 | (-33) | 85 | 13 | 72 | 25 |
| Community | 2564 | 1707 | 857 | 2546 | 1740 | 806 | (-51) | 2509 | 1730 | 779 | (-27) |
| Range/ Training | 1699 | 1032 | 667 | 1462 | 1060 | 402 | (-265) | 1463 | 1060 | 403 | (-1) |
| Airfield | 690 | 479 | 211 | 690 | 479 | 211 | 0 | 690 | 479 | 211 | 0 |
| Industrial | 501 | 225 | 276 | 367 | 91 | 276 | 0 | 217 | 51 | 166 | (-110) |
| TOTAL | 8496 | 5061 | 3435 | 8500 | 5069 | 3431 | (-4) | 8500 | 5058 | 3442 | 11 |
| TOTAL PERCENTAGES | 100 | 60 | 40 | 100 | 60 | 40 | 0 | 100 | 60 | 40 | 0 |
| MAIN POST TOTAL | 7692 | 4796 | 2896 | 7700 | 4827 | 2873 | (-23) | 7700 | 4827 | 2873 | 0 |
| FBNA TOTAL | 804 | 265 | 539 | 800 | 242 | 558 | 19 | 800 | 242 | 558 | 0 |

(1) As of December 2013, there are 8 acres more on Main Post and 4 acres less on FBNA. This is because Fort Belvoir no longer includes the 4 acres under I-95; the 8 additional acres on Main Post is because the 1993 acreage that did not include an out-parcel, the Friends House swap, ballfields on North Post, and Berman Tract land. The 1993 plan also reflects differences in shoreline measurements (owing to mean low water vs. mean high water included in original Master Plan) and inclusion of HEC but not FBNA.

Figure 4: Land Use Comparison

The proposed land use plan continues the trend of more professional/institutional uses on Fort Belvoir. The largest change in land use proposed is the loss of approximately 110 acres of industrial and the gain of approximately 113 acres professional/institutional use; bringing the total land designated as professional use to 2,288 acres.

The proposed land use plan reflects the following changes from the exiting land use (numbers indicated on the land use map):

1. Identifying land adjacent to Gunston Road and the South Post development area as professional use rather than troop use.
2. Reduction in the South Post industrial land use by about 55 percent. Industrial use should not be impacted due to modern facilities that are more efficient.
3. Consolidation of the industrial land use to the west of Gunston Road. The industrial use east of Gunston Road becomes professional use.
4. Designation of the land south of the Fort Belvoir Community Hospital to reflect the Warrior in Transition complex.

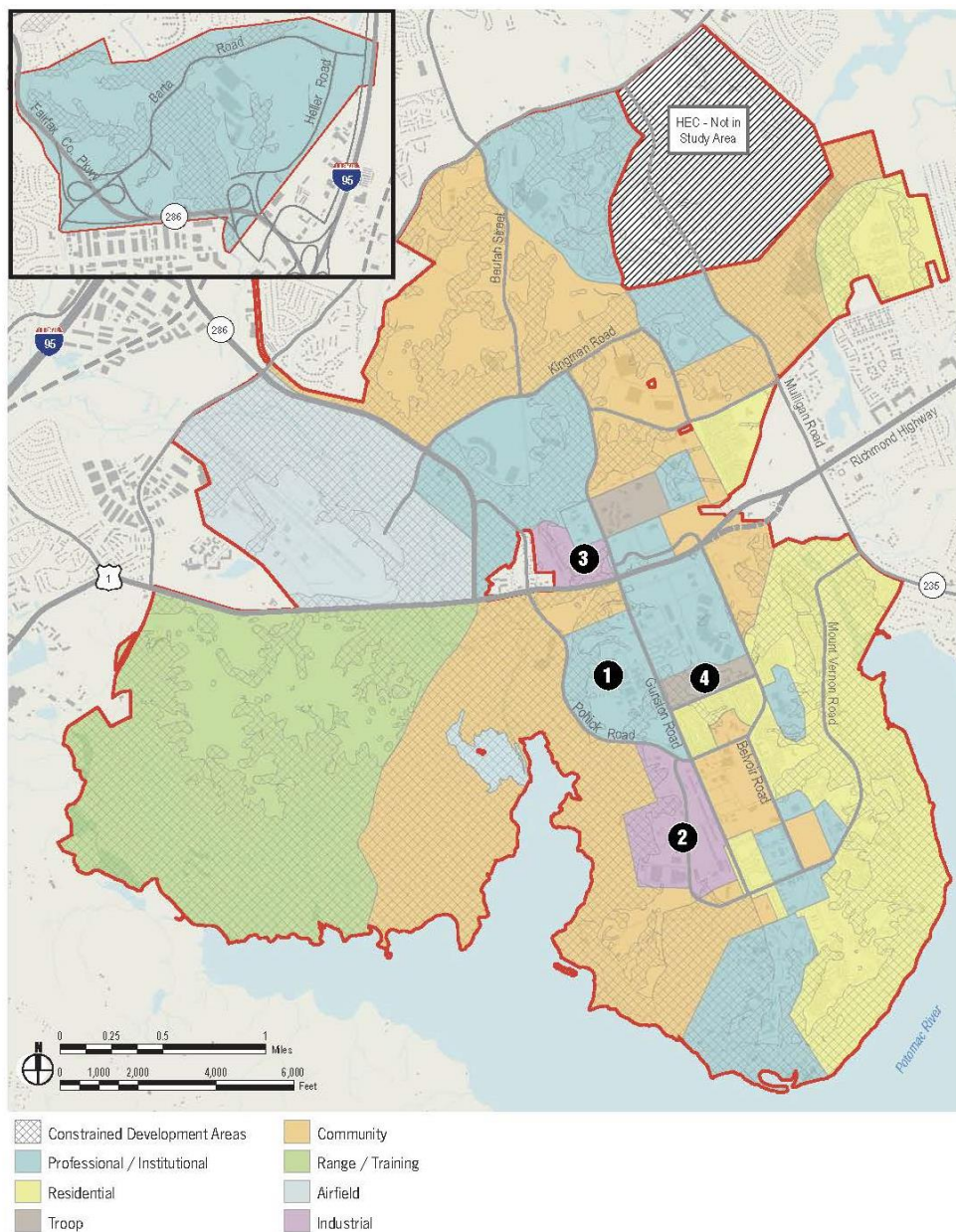


Figure 5: Proposed Land Use Map

Framework Plan

The Framework Plan is to serve as “an adaptable blueprint to control, coordinate, and direct change” at Fort Belvoir. The framework plan provides a structure to guide long-term development. The Army used the areas identified as developable to create development parcels that will be developed/redeveloped in the short-term (by 2017) and the long-term (by 2030). In addition, the Framework Plan includes changes to the internal roadways at Fort Belvoir to strengthen the grid network. The Framework identifies location for open space and recreational space as well as housing development.

On the next page is the proposed development plan that shows what parcels should be developed in the short and long-term. The intent of the development plan is to infill development in order to increase density and to leverage existing infrastructure. Other goals included the development plan is to: concentrate redevelopment in the core; to redevelop ageing facilities; to encourage redevelopment of surface parking lots; to build structured parking; to maintain green space throughout development areas; and to build taller more dense development.

The development plan shown also highlights the proposed roadway circulation on the installation. The Army’s goal is to increase east to west circulation through South Post, strengthening a street grid pattern on Fort Belvoir. The Army is also proposing an additional crossing from North to South Post; currently, there is only one installation road that serves that connection. Other roadway circulation goals include: completing intersection improvements; continuing Heller Road over Accotink Creek to complete a loop road on Fort Belvoir North Area; and to ensure that neighborhood streets remain connected to each other and to town center development.

The framework plan also includes strategies for multimodal circulation. The goal of the multimodal plan is to “bolster the existing infrastructure network for an integrated and efficient means of travel other than the car.” The plan includes potential transit centers; a commuter services center; and a proposed transit corridor on the existing abandoned rail line that connects Main post Fort Belvoir to the Virginia Railroad Line. Other strategies include: expanding the existing network of bike lanes on the installation; creating a wayfinding system; expanding Army run shuttle services; and expanding pedestrian linkages.

In addition, the framework plan includes a framework for open space and recreation areas. The plan identifies: community and recreation areas; multipurpose trails; locations for community gardens; and even hunting areas (bow only). The Army’s strategies regarding open space include: aligning pedestrian trails with regional trails; grouping recreational fields together to create a sports complex; strategically located community centers and recreation facilities to serve as hubs; and providing recreational trails throughout the natural area on the installation.

The framework plan also includes strategy on housing development. Based on housing demand modeling, the Army has determined that Fort Belvoir needs about 2,106 housing units to accommodate demand; this amounts to approximately 7,500 residents (3.5 people per household). The Army is not proposing a major change in housing units; the plan includes redevelopment of

the River Village and Douge Creek neighborhoods, which result in a loss of about 223 units. The housing plan proposes to replace those units to reinforce the South and North Post town centers.

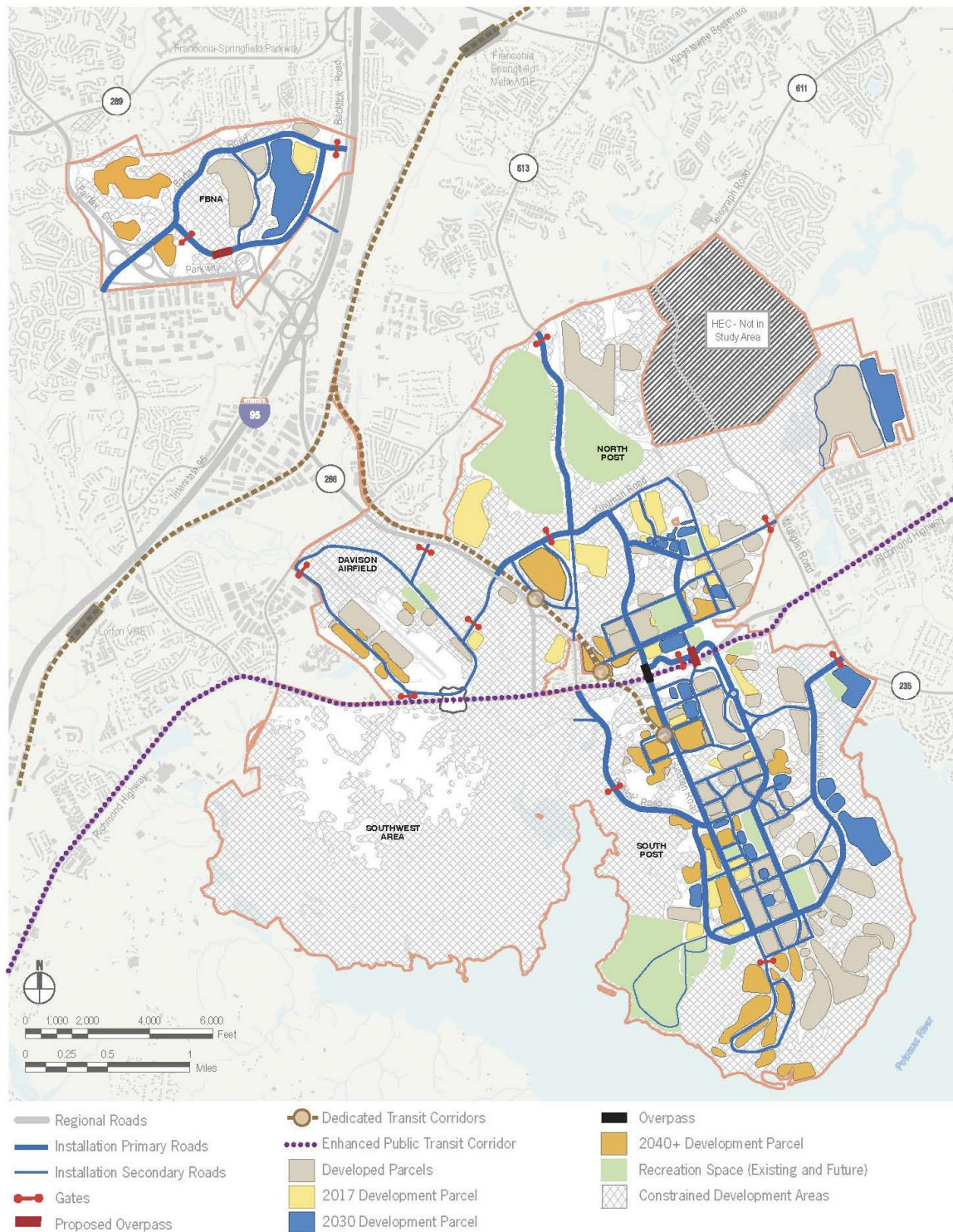


Figure 6: Framework Development Plan

Infrastructure Plan

The last element of the IDVP is an infrastructure plan that evaluated the existing infrastructure of the installation against proposed development and recommends phased approaches to the infrastructure to support growth.

The Transportation Management Plan (TMP)

The draft Fort Belvoir Transportation Management Plan (TMP) includes: an assessment of the existing transportation system; results from a commuter survey; a parking inventory; a traffic assessment based on short and long-term growth; transportation management strategies; an implementation plan; and a monitoring and evaluation plan.

The goals of the proposed TMP are to enhance mobility, reduce traffic, conserve energy, and improve air quality by reducing and/or shortening the number of single occupancy vehicle (SOV) trips. The TMP states that these goals will be achieved through: support for a variety of commuting options; reducing the number and frequency of employee trips; and altering the times in which employees commute to and from the installation.

The TMP includes a parking assessment of the existing parking on the installation. The Army inventoried all the parking on installation and found that there are currently approximately 31,905 parking spaces throughout Fort Belvoir. The Army also analyzed parking in relationship to the amount of employees in the area and found that South Post has the most parking spaces per employees at 93 percent; the North Post has about 83 percent parking; Fort Belvoir North Area has 59 percent; and Davidson Army Airfield has a parking ratio of 62 percent. The table below shows the draft TMP's proposed parking ratio for the different areas for the 2017 timeframe and the long-term 2030 timeframe. In the short-term the Army proposes 34,763 parking space for 44,137 employees (a parking ratio of 79%) and the 41,081 parking spaces for 56,167 employees in the long-term (a 73% parking ratio).

| Table 4.2 Parking End State | | | | | | | | | |
|--|----------------|----------------|-------|----------------|----------------|-------|----------------|----------------|---------|
| AREA | 2013 | | | 2017 | | | 2030 | | |
| | Parking Spaces | # of Employees | Ratio | Parking Spaces | # of Employees | Ratio | Parking Spaces | # of Employees | Ratio |
| North Post | 10,636 | 12,792 | 83% | 12,881 | 15,994 | 81% | 13,661 | 17,294 | 79% |
| South Post | 15,212 | 16,433 | 93% | 15,868 | 17,527 | 91% | 17,806 | 20,757 | 86% |
| DAAF | 881 | 1,413 | 62% | 784 | 1,783 | 44% | 784 | 1,783 | 44% |
| FBNA | 5,176 | 8,743 | 59% | 5,230 | 8,833 | 59% | 8,830 | 16,333 | 54% (1) |
| <i>Totals</i> | 31,905 | 39,381 | 81% | 34,763 | 44,137 | 79% | 41,081 | 56,167 | 73% (2) |
| (1) New construction at FBNA is required to meet 50% POV parking due to access to HOV/Express lanes, per NCPC guidelines for federal agencies | | | | | | | | | |
| (2) The end state parking totals do not reflect the loss of existing surface parking lots as a result of new building construction; the totals presented in the table would therefore be further reduced from what is shown. The actual target amounts will be determined based on final design of the near-term/long-term projects. | | | | | | | | | |

Figure 7: Parking Ratio Comparison

The Fort Belvoir TMP is an “umbrella” document that establishes goals and objectives for the installation as a whole. Agency-level TMPs will be developed for site-specific strategies and will need to comply with the Fort Belvoir TMP.

The draft TMP proposes the reduction in the Single Occupancy Vehicle (SOV) use to 75 percent (from 81 percent) by 2017, approximately 33,110 employees. To reach this goal, the Army proposes an increase in carpool and vanpool by 2 percent and an increase in public transit by 2 percent; additional reduction will be met by an increase in alternative work schedules and temporary duty/out of office. For the long-term, the Army proposes to reduce SOV use to 60 percent. In order to meet this goal, the Army proposes an increase in carpool and vanpool use by 2 percent; an increase in public transit by 8 percent; and telework and alternative work schedule by 3 percent over 2017 levels.

| Table 7.25 Targeted Long-Term Goals | | | | | | |
|--|------------------------|---------------|---------------|------------------------|---------------|---------------|
| | SHORT TERM | | | LONG TERM | | |
| | Projected Modes (2017) | | | Projected Modes (2030) | | |
| Mode Choice | % Employees | # Employees | Vehicle Trips | % Employees | # Employees | Vehicle Trips |
| Drive Alone (1 vehicle trip per 1 PN) (1) | 75% | 33,110 | 33,110 | 60% | 33,700 | 30,751 |
| Rideshare Drivers and Passengers | | | | | | |
| Carpool (1 vehicle trip per 2 PN) | 7% | 3,090 | 1,545 | 8% | 4,493 | 2,247 |
| Vanpool (1 vehicle trip per 4 PN) | 4% | 1,766 | 441 | 5% | 2,808 | 702 |
| Temporary duty/Out of office | 2% | 883 | 0 | 3% | 1,685 | 0 |
| Rail (Metro/VRE) | 4% | 1,766 | 0 | 10% | 5,617 | 0 |
| Public Bus | 4% | 1,766 | 0 | 6% | 3,370 | 0 |
| Private Bus/Shuttle Service | 1% | 441 | 0 | 1% | 562 | 0 |
| Alternate Work Schedule | 1% | 441 | 0 | 3% | 1,685 | 0 |
| Telework | 1% | 441 | 0 | 2% | 1,123 | 0 |
| Motorcycle | 0.50% | 221 | 0 | 1% | 562 | 0 |
| Bicycle/Walk | 0.50% | 221 | 0 | 1% | 562 | 0 |
| Totals = | 100% | 44,146 | 35,096 | 100% | 56,166 | 33,700 |
| (1) By 2030, the targeted drive alone goal is actually less than 60% when considering that a portion of the total POV parking spaces that will be constructed will only support 60% of the workforce. By 2030, all or most of the POV parking will be 60%, and these POV parking areas will also be shared by rideshare drivers. As a result, the actual drive alone percentage will be reduced to approximately 55% (based on vehicle occupancy, this may vary by +/- 2%) of the total workforce population; vehicle trips are similarly reduced in 2030 for rideshare. | | | | | | |

Figure 8: Short and Long-term Mode Splits

The draft TMP includes a list of potential strategies to reach the proposed modal splits. The list includes short-term (0 to 2 years), mid-term (5 years), and long-term (10 plus years) strategies and focuses on: parking management; agency coordination; regional collaboration; information outreach; mobility choices; land use and facilities. Potential short-term strategies include: establish a designed Employee Transportation Coordinator at each agency; evaluate and establish commuter service centers; implement designated parking installation wide; and pursuing bike-share and care-share programs on the installation. Some mid-term strategies include: implementing expanded parking enforcement policies; pursuing the feasibility of establishing satellite commuter centers; and expanding bus service throughout the post to better meet the needs of commuters. Some long-term strategies include: evaluate the feasibility of pedestrian/bicycle only gates and transforming the historic rail corridor into a multimodal connection.

The Installation Planning Standards (IPS)

The Installation Planning Standards (IPS) of the draft RPMP “promotes visual order and architectural consistency.” The IPS includes: site planning standards; building design standards; circulation standards; landscape design standards; and site elements design standards.

The figure adjacent is an example of regulation plans contained in the IPS. It shows site planning goals for Fort Belvoir such as: structured parking; a continuous building wall; and introduction of roadways to contribute to Fort Belvoir’s street grid.

In addition to site planning standards, the IPS includes building material standards based on the character of the surrounding buildings in a district. This includes standards on roofing material and exterior building material and color as well as site furniture such as lampposts and trash receptacles.

Figure 2.10: 1400 East Area Regulating Plan



Figure 9: 1400 East Area Regulating Plan

Projects identified in the draft Environmental Impact Statement (DEIS)

Alternative 1 of the draft Environmental Impact Statement (DEIS) is the Army's preferred alternative and includes 52 short-term projects and 19 long term projects. A full list of the projects is located in Appendix A and the location of the projects are shown in the map below. Due to the length of drafting the master plan, some of the short-term projects have been previously reviewed by the Commission and have been built such as the Post-Exchange building on the North Post of Fort Belvoir.

The short-term projects range from FY 2012 to FY 2017. Of the 52 projects in the short-range, the Commission has reviewed 18 projects. In total the short-term projects will amount to: approximately 3,482,138 square feet of new building stock; 275.3 acres of disturbed land; 88.7 acres of new impervious surface; and approximately 4,755 new employees to the installation. Some of the major projects in the short-term include:

- The Post Exchange is a 270,000 square feet facility that opened in June 2013.
- U.S. Army Intelligence and Security Command (INSCOM) Headquarters Expansion: This project will be completed in four phases and should amount to approximately 802,000 square feet of new office and parking. The Commission approved Phase 1 of the project which included the new parking structure, landscaping, and stormwater management.
- National Museum of the United States Army: This project will be completed in four phases as well as a project for reconfiguring the Fort Belvoir North Post golf course. The Commission gave final approval for the golf course reconfiguration and the museum project in May of 2013.
- A Fairfax County School Expansion: this will be a new addition to the existing Fort Belvoir Elementary School on the North Post of Fort Belvoir. It is anticipated that the new project will accommodate up to 492 students. The Commission will see preliminary design of the December 2014.
- Defense Logistics Agency (DLA) parking garage: this will be two new parking garages approximately 700,000 square feet on the DLA campus. The two garages will be multiple stories and will accommodate 1,650 parking spaces.
- DLA Administrative Center: this project would construct an administration building on existing DLA parking lot that would be approximately 267,000 square feet.

The long-term projects range from FY 2018 to FY 2030 and includes 19 projects. In total the long-term projects will amount to: approximately 2,406,000 square feet of new building; 1,443,600 square feet of new parking structures; 98.9 acres of disturbed land; 33.3 new impervious surface; and an addition of approximately 12,030 personnel. The four largest projects included in the long-term are:

- Lower North Post District: this project would redevelop parcels adjacent to the Office of the Chief of Army Reserve (OCAR) and would result in approximately 240,000 square feet of building area with about 1,200 additional personnel.

- 1400 East District: this project would redevelop parcels that currently have relocatable buildings, other administrative facilities, and parking lots. The project would result in approximately 266,000 square feet and would allow for 1,330 additional personnel.
- Administrative Campus District: this project would build an administrative facility (up to eight stories high) on the location of the Dewitt Army Community Hospital adding about 220,000 square feet of building to the installation and allowing approximately 1,100 employees.
- Fort Belvoir North Area District: this would be the largest project in the long-term with a new administrative center that will accommodate approximately 7,500 new employees in 1.5 million square feet of office.

Mitigation Measures identified in the draft Environmental Impact Statement (DEIS)

In addition to the projects outlined in the DEIS and the IDVP, the DEIS also includes measures to mitigation development and growth at Fort Belvoir. The full list of mitigation measures is located in Appendix B.

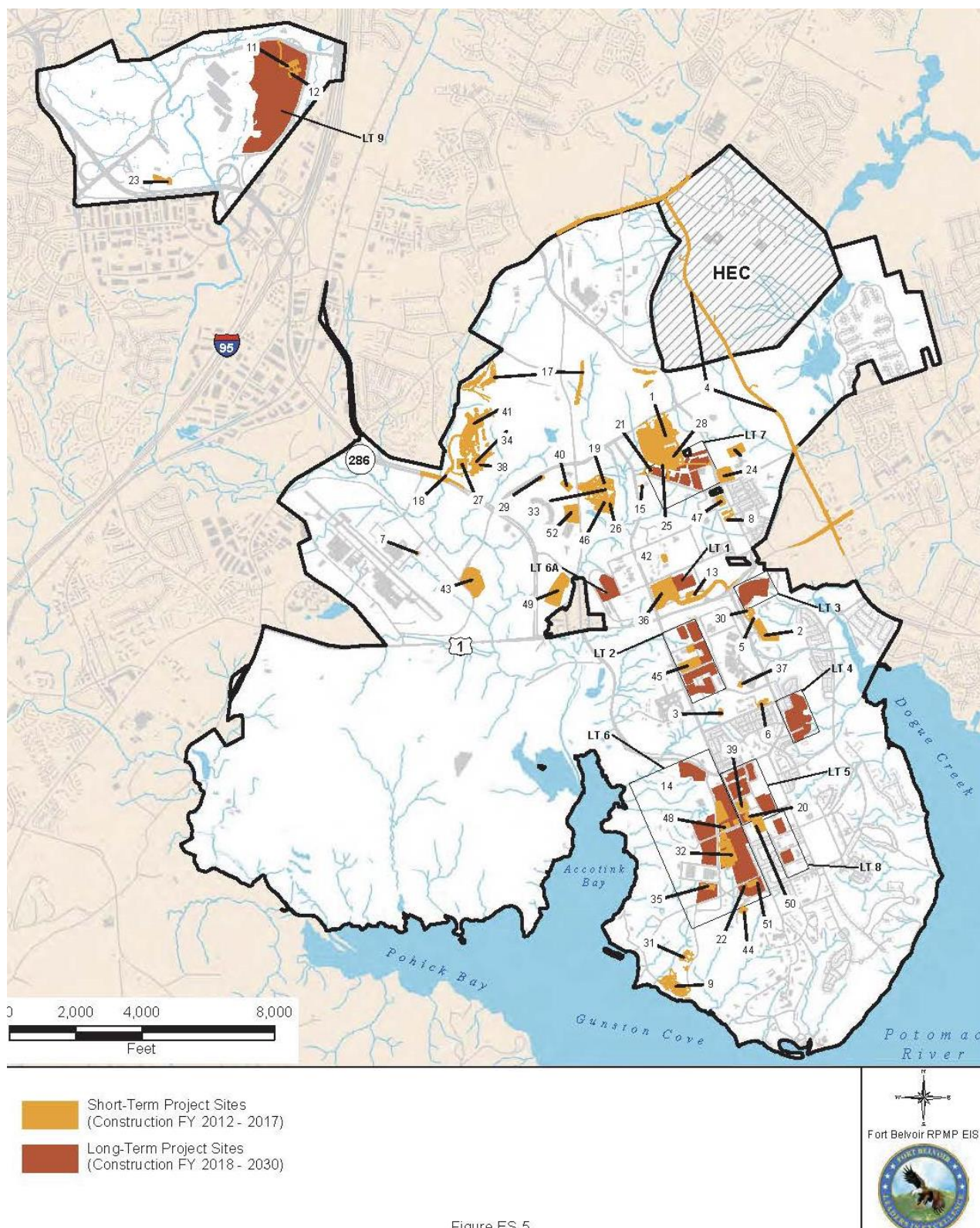
Regarding potential transportation impacts, the DEIS analyses short and long-term transportation improvements the Army is proposing to support the proposed increase in personnel. For the short-term, the Army is proposing five projects: one intersection project; one new access control point from U.S. Route 1 onto the North Post; two transit centers; and improvements to John J. Kingman Road. All of the short-term transportation improvements would be located on Army property. For the long-term the Army is proposing ten projects: potential intersection improvements on U.S. Route 1 and Fairfax County Parkway; six new roadway segments; and improvements to six roadways. The Army intends to construct transportation improvements concurrently with population growth on the installation.

Regarding potential impacts on water resources, the Army is proposing the following mitigation:

- Proposed projects will be located away from stream valleys and surface water;
- Future projects will adhere to federal, state, and local regulations regarding wetlands, floodplains, the Chesapeake Bay requirements; and stormwater management.
- To mitigate short-term projects, the Army will fund stream restoration for 17 degraded stream segments.

To mitigate for potential impacts to biological resources, the Army proposes to:

- Enforce the Fort Belvoir Tree Replacement Policy that requires the replacement of trees lost at a 1:2 ratio (trees lost: trees replaced). Out-of-kind replacement is also allowed.
- Mitigate the short-term projects by adding land to Fort Belvoir's Forest and Wildlife Corridor and the Accotink Wildlife Refuge as well as building three new wildlife crossings under U.S. Route 1 and a wildlife bridge across Accotink Creek in Fort Belvoir North Area.



II. PROJECT ANALYSIS/CONFORMANCE

Analysis

Overall the master plan is very thorough. The current draft master plan addresses many of the comments and issues raised by NCPC and Fairfax County staff during several past consultation meetings and reviews. Staff finds that the RPMP has the potential to provide the Commission with the necessary context to review future individual site and building plan projects. The IVDP will provide a long-term planning scenario that the Commission and NCPC staff can use to set expectations for Fort Belvoir in the future. If successful, the Framework Plan will be consistent with the Comprehensive Plan and should inform project planning and design which, if funded, would then be included in subsequent revisions to the short-term project list.

The Installation Vision and Development Plan (IVDP)

NCPC staff recommends that within the IVDP the Army evaluate: Environmental Mitigation Areas; potential sea level rise and its effect on developable areas; and locations for sustainable energy sources.

In 2012, the Commission requested that the Fort Belvoir Master Plan include a vegetation plan in order to analyze locations for vegetation replacement. The Army's tree replacement policy also allows for out-of-kind environmental mitigation if tree replacement is unattainable for a project; in the past the Army has done stream restoration as a type of out-of-kind mitigation. While the Army does provide a small vegetation plan in the IVDP, staff finds it lacks adequate detail and recommends the Army continue to evaluate additional locations for planting, such as the shoreline and the buffer area between the airfield and the surrounding community. Given that the Army's policy allows out of kind mitigation for tree removal, staff request that the vegetation plan be expanded to include other mitigation measures that may be undertaken such as: low-impact stormwater management upgrades; removal of impervious surfaces; stream restoration; conservation areas; and remediation areas. The environmental mitigation map should identify these projects by priority. Staff notes that the IVDP does include stream restoration and refuge mitigation areas, and recommends that these areas and the vegetation

Figure 2.12 - Tree Mitigation Areas

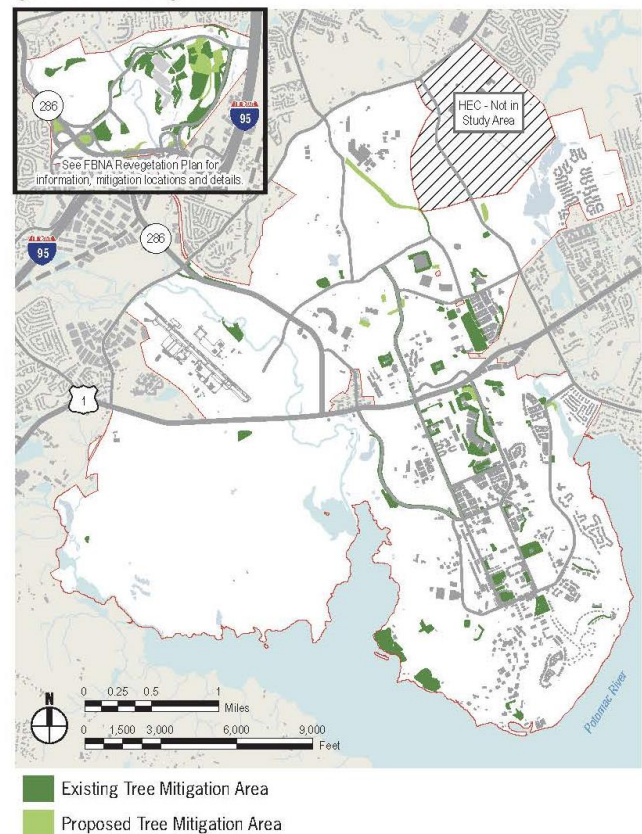
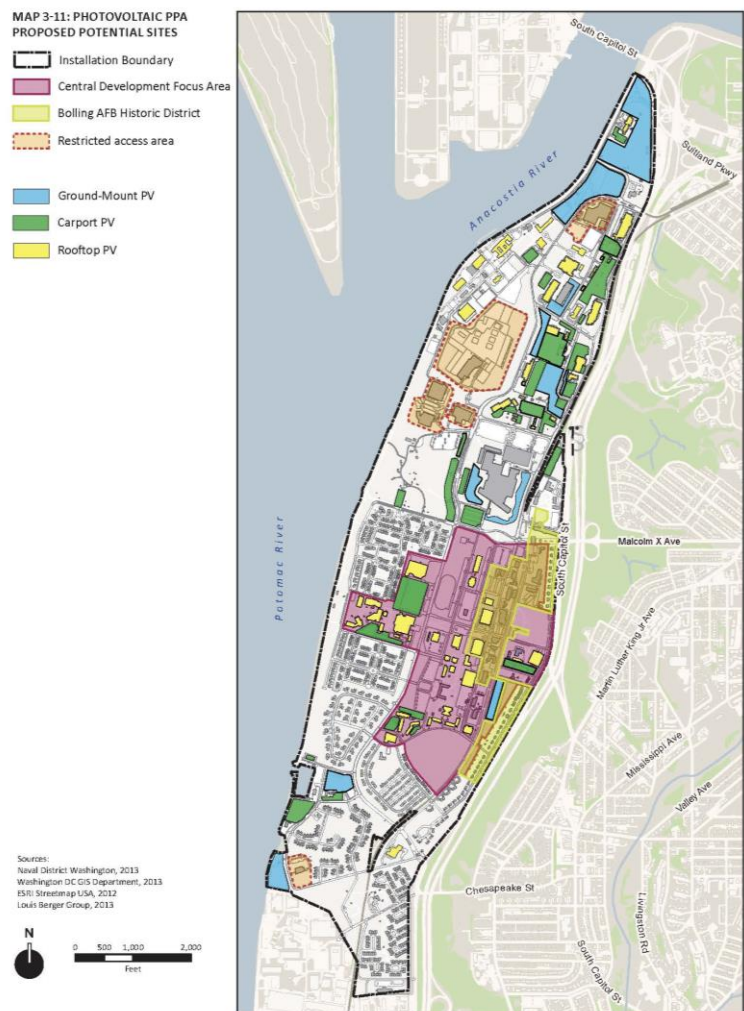


Figure 11: Fort Belvoir Tree Mitigation Areas

plan be expanded to include other mitigation measures and be shown in one Environmental Mitigation Areas map.

Given that Fort Belvoir has eleven miles of river frontage and that sea level has been rising in recent years and is anticipated to continue to rise, staff requests that the Army evaluate potential sea level rise within the timeframe of the master plan to determine if proposed development sites will be problematic in the future. While the topography of Fort Belvoir may generally hinder sea level rise from effecting development, areas close to the shoreline such as buildings in the 300 Area and development near the mouth of Douge Creek may be impacted. The Army is proposing a few parcels in these areas for long-term development and staff is concerned these parcels may be infeasible for development due to sea level rise. Also, the Army should evaluate if existing uses should be relocated due to flooding from potential sea level rise or if measures should be undertaken to protect these assets.

Given the requirements for federal agencies to reach net zero and to increase its use of green energy production, within the framework plan the Army should evaluate potential locations for green energy such as solar farms or wind energy and evaluate any impact that would have on potential development parcels. A recent example the Commission had reviewed regarding evaluation of green energy locations within a master plan was the evaluation of potential solar energy sites within the Joint Base Anacostia-Bolling (JBAB) master plan.



The Transportation Management Plan (TMP)

NCPC staff commends the Army for capping employee parking at 60 percent for new administration buildings and for committing to reducing parking through identification of parking areas for redevelopment parcels. In the long-term the Army is proposing 41,081 parking spaces for 56,167 employees, which is one parking space for every 1.37 employees. The Federal Elements of the Comprehensive Plan for the National Capital recommend a parking ratio of one parking space for every 1.5 employees. In order for the Army to reach the Comprehensive Plan's parking ratio goal, the Army would need to reduce the amount of parking by approximately 3,600 parking spaces, for a total of approximately 37,445 employee parking spaces. Given that the Army is proposing a reduction in SOV usage from 81 percent to 60 percent in the next 17 years, additional reduction in SOV usage to meet the 1:1.5 parking ratio may be unattainable; however, we request that the Army evaluate what it would take to reach the 1:1.5 parking ratio and if it is achievable.

Given that Fort Belvoir is a large installation that has different characteristics and transportation options based on location throughout the installation, NCPC staff encourages the Army to evaluate parking ratios based on districts. One possible location to target additional parking and SOV usage reduction is the South Post. The Army is proposing to reduce the parking ratio at the South Post from 93 percent parking to 91 percent in 2017 and 86 percent in 2030. Of the four development areas (North Post, South Post, Fort Belvoir North Area, and the airfield), 86 percent is the highest parking ratio proposed. Given the proposed redevelopment in the South Post area and that South Post is one of the denser areas on the installation, we recommend that the Army reevaluate the amount of parking proposed in the South Post. In addition, another strategy that could improve upon the installation-wide parking ratio, as well as encourage compact development, would be to implement stricter parking allowances for new development in areas less suitable for development.

The Comprehensive Plan and the Army's parking restrictions pertain to employees; however, visitors to Fort Belvoir impact the transportation network and the volume at the gates. The Army should start to analyze strategies that reduce visitor SOV usage to the installation.

The Fort Belvoir TMP is an umbrella document that sets goals and objectives for the installation while agency level TMPs focus on site specific strategies and therefore, the Army is requiring that the individual agencies have a TMP. NCPC staff supports the direction the Army is taking; however, additional monitoring and evaluation in the installation-wide TMP is needed to ensure that agency level TMPs are enforced and updated as necessary.

The Installation Planning Standards (IPS)

The IPS includes design standards based on roadway classification. These include dimensions of sidewalks, bike lanes, cartway, and if applicable, medians and vegetation strips. Staff recommends that the Army analyze the use of Low Impact Development (LID) tree box filers as part of roadway stormwater management, particularly in the denser developments on North and South Post. LID tree box filter standards should be included in the IPS and encouraged in the roadway design standards.

In addition, the Army should evaluate including permeable pavement standards within the IPS. The Army has tried different types of permeable pavement throughout recent projects at Fort Belvoir; the IPS should identify which types work best and recommend material and dimensions standards.

Potomac Heritage National Scenic Trail

The Potomac Heritage National Scenic Trail (PHNST), is a National Scenic Trail overseen by the National Park Service (NPS). The PHNST is a trail corridor of approximately 830 existing and planned sections that run from Point Lookout, Maryland and Smith Point, Virginia along the Potomac River up to Washington DC, and beyond to West Virginia and Pennsylvania. As the Potomac Heritage Trail feasibility study noted: "Those characteristics which make the trail worthy of national scenic designation are both individually impressive and collectively significant. The variety is truly remarkable, ranging from historic battlefields and fortifications.., to historic homes.., from urban complex of metropolitan Washington with all of its government functions and its central place in the development of American life to the remoteness of the Dolly Sods in Monongahela National Forrest..." Spanning five physiographic provinces, the Trail network lies within one of the most significant corridors in the Nation and makes connections between and among outstanding natural, historical, and cultural features.

First proposed in 1964, the National Trails System Act of 1968 (the Act) authorized a feasibility study for a "Potomac Heritage Trail," subsequently completed and published by the Bureau of Outdoor Recreation in 1974. In 1983, an amendment to the Act identified a corridor and authorized development of the Trail based on a narrative and generalized map. The Act places responsibility for administration of the Federal interest in the Trail with the Secretary of the Interior (the Secretary) and authorizes the Secretary to encourage and assist state, local, or private entities in establishing, administering, and protecting those segments of the Trail on nonfederal lands. On Federal lands, the Secretary is directed to consult with the heads of the affected Federal agencies. Development and management of each trail segment shall harmonize with and complement established multiple-use plans for specific areas to ensure continued maximum benefits from the land, and the location and width of the Trail rights-of-way on Federal lands shall be by agreement.

During the review of the PHNST feasibility study and the resulting environmental documentation, the Commission noted its support for the development of the trail and its commitment to ensure that the PHNST would be included in the master plans for both Fort Belvoir and Marine Corps Base Quantico considering both installations are on the Potomac River and identified as potential location for the PHNST.

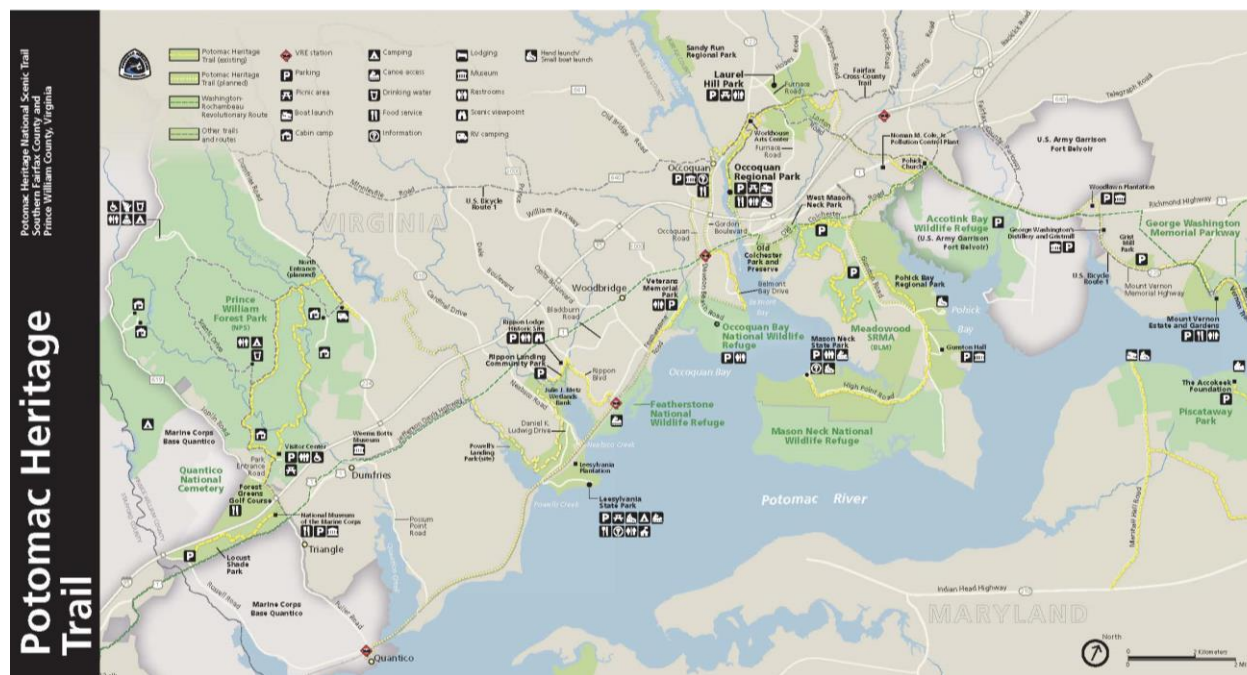


Figure 13: Potomac Heritage National Scenic Trail in Southern Fairfax County

The 1993 Fort Belvoir Master Plan proposed the Trail alignment meandering within Fort Belvoir in proximity to U.S. Route 1. In 1997, the Army conducted an Environmental Assessment to evaluate the PHNST within Fort Belvoir. The Army found that the Fort Belvoir segment of the Heritage Trail would serve three purposes:

- Provide an important link in the Trail system that is intended to facilitate the public's awareness of cultural and natural resource values of the Washington, DC area with emphasis on the Potomac River.
- Serve as a recreational asset where military personnel and the regional community could walk, run, or bicycle.
- Educate the public on ecological assets and environmental programs of Fort Belvoir as users travel through wooded areas and wetlands enhanced by interpretive signs.

The Comprehensive Plan for the National Capital outlines multiple policies regarding the federal government's responsibility to protect parks and open space in the National Capital Region. The Parks and Open Space Element of the Comprehensive Plan has multiple policies regarding the project, and expansion of the trail network throughout the region, including those that state the federal government should:

- Plan, complete, and maintain connections between public parks and open space.
- Conserve portions of military reservations that add significantly to the inventory of park, open space, and natural areas and should, to the extent practicable, be used by the public for recreation.
- Develop new trails and complete partial trails that connect to parks, schools, businesses, and other community amenities to provide a system of contiguous regional trails for

extensive recreation and transportation use. Examples of trails to be completed include: the Anacostia Riverwalk Trail; the Metropolitan Branch Trail; and the Potomac Heritage Trail.

It should be noted that the draft RPMP does not include an alignment of the PHNST; this was done in agreement with NCPC and the NPS staff. Due to security concerns, the Army was originally showing the PHNST along U.S. Route 1, outside the perimeter fence of Fort Belvoir. The NPS expressed concern that U.S. Route 1 did not create an experience commensurate with a national scenic trail. The Army removed the alignment from the maps to allow for further planning analysis of potential routes and the Army, the NPS, and NCPC along with the Northern Virginia Regional Commission are in the process of executing a Memorandum of Understanding to facilitate that planning analysis.

While a trail alignment is not shown in the draft RPMP, the Army has included language describing the PHNST and its intention to traverse southern Fairfax County. Through the NCPC referral process, the NPS provided language modifications to be included in the master plan documents regarding the PHNST. The Army should continue to work with the NPS and NCPC on the final description of the PHNST in the RPMP.

Comprehensive Plan for the National Capital

The master plan is generally consistent with the Federal Elements of the Comprehensive Plan for the National Capital. The master plan guiding principles conform to the Comprehensive Plan. The RPMP promotes: environmental sustainability; redevelopment of existing disturbed land; structured parking; reduction in parking; minimization of impacts on the environmental; increased stormwater management; and protection of historic properties.

Relevant Federal Facility Master Plan

The Commission last approved the Fort Belvoir Master Plan in 1993 with the Installation Design Guide in 1995 and a subarea plan approval in 2002. The proposed master plan update would supersede the 1993 Master Plan upon Commission approval of the final version.

National Environmental Policy Act (NEPA)

In accordance with the National Environmental Policy Act, the Army is conducting an Environmental Impact Statement (EIS) to analyze the potential impacts of the short-term and long-term projects. The draft EIS is currently out for public comment. The Army held a public meeting on the DEIS on September 30, 2014.

The DEIS considers a range of alternatives to implement the master plan including a No Action Alternative. The range of alternatives developed had to meet the project purpose and need, minimize environmental impacts, recognize the possibility of funding delays (which would postpone projects), and ensure that access to the Fort Belvoir North Area was sufficient to accommodate future development. The net workforce increases are measured from the fall 2011 (post-BRAC) workforce of approximately 39,000. In all, three alternatives (in addition to a No Action alternative) are presented:

Alternative 1: Full Implementation (Preferred Alternative): Alternative 1 assumes that all parts of the RPMP would be approved and implemented, including the Installation Vision and Development Plan, the Installation Planning Standards, and the Transportation Management Plan. Full implementation would result in a total post workforce of approximately 44,000 by 2017 and 56,000 by 2030.

Alternative 2: Modified Long-Term: Alternative 2 assumes full implementation of the master plan except that there would be no long-term development project on the Fort Belvoir North Area (a proposed secure campus for 7,500 additional personnel). Also, two projects involving expansion of the Defense Logistics Agency would be delayed until the long-term. Alternative 2 allows a comparison of the transportation system effects of not building on the Fort Belvoir North Area in the long term with building a major, new, secure campus for 7,500 personnel in the long term under Alternatives 1 and 3. Implementing Alternative 2 would result in approximately 43,000 personnel on post by 2017 and 50,000 by 2030.

Alternative 3: Modified Short-Term: Alternative 3 assumes almost full implementation of the master plan except that implementation of the majority of short-term projects would be delayed from the short-term (2012-2017) to the long-term (2018-2030) and some projects would have fewer personnel than under Alternative 1. Projects postponed until 2018 or later would still be implemented. Implementing this alternative would result in approximately 40,000 personnel by 2017 and 55,000 by 2030.

| Alternative | Short-Term Projects | Long-Term Projects | 2017 Post Workforce (Increase from Sept 2011) | 2030 Post Workforce (Increase from Sept 2011) |
|-----------------------------------|---------------------------------|---|---|---|
| No Action Alternative | None | None | No increase | No increase |
| Alternative 1 Full Implementation | All Implemented | All Implemented | 44,000 (+5,000) | 56,000 (+17,000) |
| Alternative 2 Modified Long-Term | ST 40 and 52 deferred to LT | LT 9 on FBNA not implemented | 43,000 (+4,000) | 50,000 (+11,000) |
| Alternative 3 Modified Short-Term | Many ST projects deferred to LT | Most ST and all LT projects implemented | 40,000 (+1,000) | 55,000 (+16,000) |

Figure 14: EIS Alternatives

The DEIS public comment period ends November 12, 2014. NCPC staff has reviewed the DEIS and has compiled comments located in Appendix D for the Army to evaluate. NCPC does not have an independent NEPA responsibility for federal projects outside the District of Columbia.

National Historic Preservation Act (NHPA)

In accordance with Section 106 of the National Historic Preservation Act, the Army initiated consultation with the Virginia State Historic Preservation Officer (Virginia SHPO). Through the NCPC's referral process, the Virginia SHPO submitted a comment letter on the proposed master plan. The Virginia SHPO noted that the Army, with the Advisory Council on Historic Preservation

(ACHP) and the Virginia SHPO, has been developing a Programmatic Agreement (PA). The Virginia SHPO stated that the PA should provide a procedural framework for evaluating potential impacts the master plan projects may have on historic properties. The PA is currently a draft document and will need to be finalized prior to the master plan being submitted for final review. Due to Fort Belvoir's location in the environs, NCPC does not have independent Section 106 responsibility.

III. CONSULTATION

Coordination with local and federal agencies

In accordance with the Commission's Procedures for Intergovernmental Cooperation in Federal Planning in the National Capital Region, NCPC staff referred the proposed project to: the NPS; Fairfax County, Virginia; the Virginia Department of Transportation (VDOT); the VA SHPO; the Virginia Department of Environmental Quality; the Washington Metropolitan Council of Governments; the Northern Virginia Regional Commission; and the Northern Virginia Transportation Commission. Comments were received from Fairfax County, the Virginia SHPO, the VDOT, and the NPS. The comments received by the NPS and Virginia SHPO were discussed previously; comments made by Fairfax County and VDOT are summarized below. All comments received are included in the appendix.

Fairfax County

The Fairfax County Board of Supervisors reviewed the draft Fort Belvoir Master Plan at its September 23, 2014 meeting and approved the transmittal of County staff comments. The County provided a variety of comments on all the documents: the VDP; IPS; TMP; and the DEIS. While this report will only discuss the concerns raised by the County, it should be noted that the County was highly appreciative of all the coordination that has occurred and of the strong environmental focus of the documents. Also, while the County provided multiple in depth comments, staff has included only a summary of those comments related to stormwater management, tree replacement, Environmental Quality Corridors (EQC), transportation impacts and mitigation, and airfield development impacts. The Army should evaluate all of the County's comments prior to submitting the final master plan, and staff recommends that the Army meet with NCPC and the County staff regarding the Army's responses to the comments.

Fairfax County's principle concern pertains to transportation impacts. The County expressed concerns that the Army did not provide information on how the proposed traffic mitigations were developed. The County noted that no post-mitigation analysis was proposed to analyze the effectiveness of the mitigation measures. The Virginia Department of Transportation expressed similar concerns. In addition, the County raised multiple comments/questions regarding the assumptions/modeling of the traffic analysis, and noted that it is unknown if the goals of the TMP to reduce SOV usage are attainable. Given the reliance on the TMP succeeding to reduce traffic impacts, the Army should create a mechanism to analyze the effectiveness of TMP measures and tie funding to needed programs.

In regards to the County's Environmental Quality Corridors (EQC), the County noted that it is the Army's policy to establish a 35-foot wide protected area along each side of intermittent streams, which is not consistent with the County's EQC policy, which is intended to protect Fairfax County's natural environment. The County defines an EQC as:

- All 100 year flood plains;
- All areas of 15 percent or greater slopes adjacent to the flood plain, or if no flood plain is present, 15 percent or greater slopes that begin within 50 feet of the stream channel;
- All wetlands connected to the stream valleys; and
- All the land within a corridor defined by a boundary line which is 50 feet plus four additional feet for each percent slope measured perpendicular to the stream bank. The percent slope used in the calculation will be the average slope measured within 110 feet of a stream channel or, if a flood plain is present, between the flood plain boundary and a point fifty feet up slope from the flood plain. This measurement should be taken at 50 foot intervals beginning at the downstream boundary of any stream valley on or adjacent to a property under evaluation.¹

The County noted that at a minimum the buffer around each intermittent stream should be 50 feet on each side. While the Army is not required to follow the County's EQC policy, NCPC staff encourages the Army to adopt the EQC policy for Fort Belvoir, given NCPC's responsibility to preserve and protect the region's natural resources.

In regards to tree replacement, the County commended the Army for having a tree replacement policy at Fort Belvoir; however, the County had recommendations on modifications to the policy. The current policy is to replace trees that are greater than or equal to four inches diameter at a one-to-two replacement ratio. The County noted that trees less than four inches in diameter also have value for wildlife habitat and recommended that the Army evaluate a tree replacement policy that considered removal of tree canopy rather than the number of trees. In addition the County recommended a prohibition against use of any non-native / invasive plant species on the installation and a commitment to promoting biodiverse community types.

At the Davidson Army Airfield, the Army is proposing development parcels west of the existing buildings with the intention to demolish the existing buildings once new buildings are built in order to eliminate intrusions into the clearance zones and increase apron space. Regarding the airfield development, the County provided the following comments:

- The Army is proposing a minimum 100 foot buffer on the west side of the airfield adjacent to the boundary and a residential community. The County requested that the Army maintain this buffer as wooded area and maximize the planting in the area as much as possible. The County also requested the buffer be expanded wherever possible.
- The County expressed concern regarding noise at the airfield. The County noted that 60-65 dB noise impact area extends west from I-95 into a residential area, which in the

¹ Fairfax County Policy Plan Volume of the Comprehensive Plan, Environment Section, Objective 9, Policy A

County's opinion is a significant impact. The County inquired if operations at the airfield could be modified to reduce the impact to the residential area.

- In the IDVP, the Army expressed interest in conducting a joint land use study with the County to analyze land use around the airfield that impact airfield operations and potential solutions to prevent future incompatibilities. The County noted it was available to discuss the concerns.

NCPC staff recommends that the Army and Fairfax County collaborate on an airfield study that evaluates operations at the airfield to reduce noise impacts and evaluates heights and land use around the airfield.

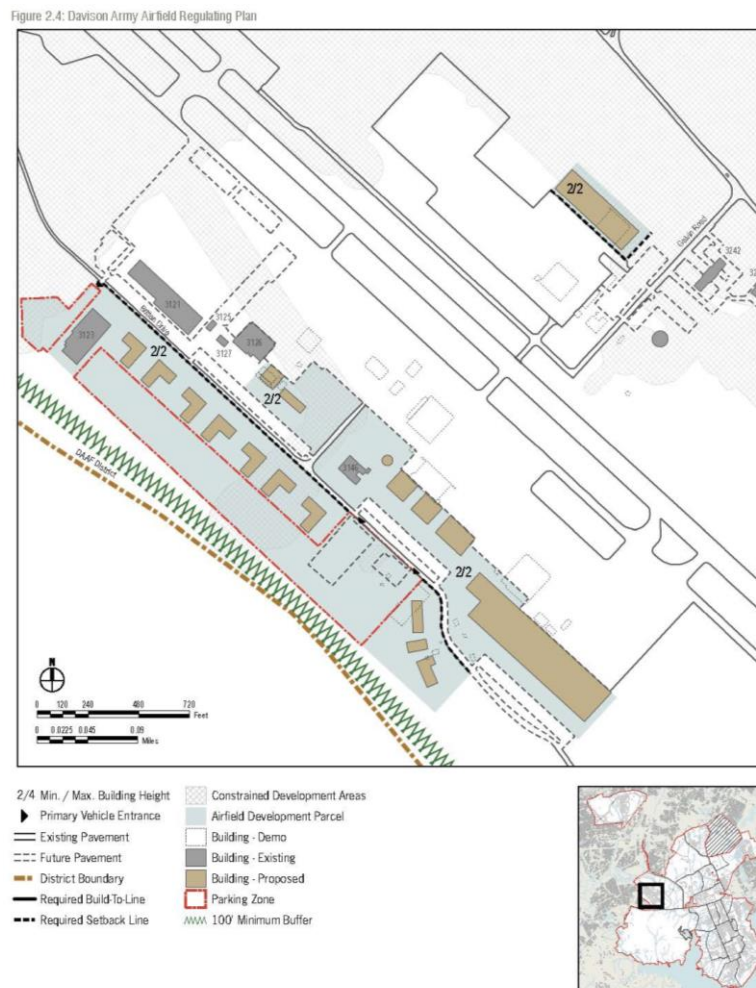


Figure 15: Davidson Army Airfield Regulating Plan

In terms of stormwater management, the County expressed appreciation for the Army's commitment to use LID and site design for stormwater management on project sites. The County recommended that when center medians are incorporated into highway designs, the Army should evaluate incorporating infiltration of stormwater from adjacent impervious areas. Fairfax County

also recommended continued coordination with the Stormwater Planning Division of the Fairfax County Department of Public Works and Environmental Services.

NCPC staff generally supports Fairfax County's comments and recommends that the Army evaluate changes to the RPMP to address the comments. We recommend that the Army meet with Fairfax County and NCPC to discuss potential changes prior to the master plan being submitted for final review.

Virginia Department of Transportation (VDOT)

The Virginia Department of Transportation (VDOT) provided eight comments in its letter on the master plan and DEIS pertaining to traffic modeling and mitigation. Regarding mitigation, VDOT noted that the mitigation measures identified in the EIS should be made part of the Record of Decision (ROD) and recommended regular monitoring to evaluate the effectiveness of the TMP to reduce SOV travel to the installation. In addition, VDOT had questions and recommendations on evaluation of potential impacts to surrounding transportation systems. The Army should review the comments submitted by VDOT in addition to the transportation comments from Fairfax County and determine if additional transportation analysis should be conducted. The Army should coordinate its response to these comments with VDOT, Fairfax County, and NCPC staff.

IV. APPENDIX

- A. List of Short and Long-term projects as in the draft EIS
- B. List of Mitigation Measures in the draft EIS
- C. Additional Comments from NCPC Staff on the Master Plan Documents and Draft EIS
- D. Comments from the National Park Service
- E. Virginia State Historic Preservation Officer Comment Letter
- F. Fairfax County Comments
- G. Virginia Department of Transportation Comment Letter